CLAIMS

What is claimed is:

1. A basic input and output system (BIOS) for a computer system, comprising:

a main engine to call and run routines, wherein some of the routines require resource accesses; and

a synchronization module to synchronize the resource accesses, wherein the synchronization module allows concurrent resource accesses to different resources.

2. The BIOS of claim 1, further comprising an access indicator associated with each of the resources to be accessed, wherein the access indicator controls access to its associated resource and does not affect access to another resource.

3. The BIOS of claim 2, wherein when a routine wants to access one of the resources, the synchronization module decreases the value of the access indicator of that one of the resources by a predetermined amount before allowing the routine to access the one of the resources.

4. The BIOS of claim 2, wherein if the value of the access indicator of the one of the resources is equal to zero, that one of the resources is not accessible by any other routine.

5. The BIOS of claim 2, wherein the access indicator and the synchronization module allow concurrent accesses to one of the resources by multiple routines when the access indicator of the one of the resources is assigned with a value greater than one.

6. The BIOS of claim 5, wherein the concurrent accesses to one of the resources by multiple routines are read/write operations to that one of the resources.

7. The BIOS of claim 2, wherein the access indicator and the synchronization module allow anyone of the routines that does not require resource access to be running concurrently with the resource accesses.

8. The BIOS of claim 1, wherein the BIOS is an EFI (Extensible Firmware Interface) based BIOS.

9. A method of synchronizing resource accesses in a basic input and output system (BIOS) of a computer system, comprising:

associating an access indicator with each of a plurality of resources;

determining what current value an access indicator of a resource has when a routine wants to access that resource, wherein the value of the access indicator indicates how many routines are allowed to access the resource concurrently; and

changing the value of the access indicator by a predetermined amount and granting access to the resource to the requesting routine if the value is not at a predetermined level.

10. The method of claim 9, wherein the access indicator of each of the resources is assigned with an initial value.

11. The method of claim 9, further comprising not changing the value of the access indicator and not granting access to the resource to the requesting routine if the value of the access indicator is determined to be already at the predetermined level.

12. The method of claim 11, wherein the changing is performed by decreasing the value of the access indicator by the predetermined amount and granting access to the resource to the requesting routine if the value is not at a predetermined lowest level, wherein the access to the resource by the requesting routine does not affect operation of any other routine that does not require access to this resource.

13. The method of claim 12, wherein the predetermined lowest level is zero and the predetermined amount is one.

14. The method of claim 12, further comprising increasing the value of the access indicator by the predetermined amount after the routine has accessed the resource.

15. The method of claim 9, wherein the BIOS is an EFI (Extensible Firmware Interface) based BIOS.

16. An article of manufacture comprising a machine accessible medium including sequences of instructions, the sequences of instructions including instructions which, when executed, cause the machine to perform:

associating an access indicator with each of a plurality of resources;

determining what current value an access indicator of a resource has when a routine wants to access that resource, wherein the value of the access indicator indicates how many routines are allowed to access the resource concurrently; and

changing the value of the access indicator by a predetermined amount and granting access to the resource to the requesting routine if the value is not at a predetermined level.

17. The article of manufacture of claim 16, wherein the access indicator of each of the resources is assigned with an initial value.

18. The article of manufacture of claim 16, further comprising not changing the value of the access indicator and not granting access to the resource to the requesting routine if the value of the access indicator is determined to be already at the predetermined level, wherein the access to the resource by the requesting routine does not affect operation of any other routine that does not require access to this resource.

19. The article of manufacture of claim 18, wherein the changing is performed by decreasing the value of the access indicator by the predetermined amount and granting access to the resource to the requesting routine if the value is not at a predetermined lowest level.

20. The article of manufacture of claim 19, wherein the predetermined lowest level is zero and the predetermined amount is one.

21. The article of manufacture of claim 19, further comprising increasing the value of the access indicator by the predetermined amount after the routine has accessed the resource.

22. The article of manufacture of claim 16, wherein the instructions are within an EFI (Extensible Firmware Interface) based BIOS (Basic Input Output System).